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SUMMARY OF 1917 CONTROL WORK SOUTHWEST OF KLAMATH FALLS ON PRIVATE LANDS UNDER THE DIRECTION OF THE KLAMATH-LAKE COUNTIES FOREST FIRE ASSN.

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Insect Control
Klamath-Lake Counties
Forest Fire Assn.

February 18, 1918.

Summary of 1917 Control Work
Southwest of Klamath Falls on Private Lands under
the Direction of the Klamath-Lake Counties Forest Fire Assn.

Through the kindness of Jackson F. Kimball, Secretary of the above Association, it was possible to make an analysis of the detailed data on a portion of the insect control work carried on by the Association during 1917.

During 1917, the Association did control work in two townships of privately owned yellow pine and sugar pine southwest of Klamath Falls, on an area which is a portion of what is known as Unit I. The second area is in the vicinity of Bly, not far from the west boundary of the Fremont National Forest. No detailed data on this second area are available.

Personnel and Plan of Work.

The control work was carried on by Messrs. Grubb, Baum, Nitschelm and Ogle, the men employed by Mr. Kimball as fire-fighters during the fire season. The men worked in pairs, and treated the infested trees as they found them without any preliminary cruising. Mr. Kimball believes this method to result in a maximum amount of treated timber at a minimum of cost.

The control work in Unit I was confined to two townships. The control data for these two townships have been kept

separate.

Township 39 South, Range 7 East, W.M.

The following table shows the number and volume of the yellow pines treated in each of the sections covered by the work.

Section	Yellow Pines Treated: Number of trees	Total Volume in Bd.Ft.
7	5	7,407
16	5	6,477
18	33	18,793
19	47	46,239
20	12	9,693
21	12	17,289
22	4	8,515
23	9	5,943
24	13	14,595
26	14	25,095
	154	160,046

In addition to the yellow pine, 2 sugar pines with a total volume of 8,456 board feet, were cut.

The treated yellow pines in this township averaged 15.4 trees or 16,000 board feet for each of the 10 sections covered by the control work. The volume of the individual trees ranged from a minimum of 100 board feet to a maximum of. 5,700 board feet. The average volume of the treated trees was slightly in excess of 1000 board feet, indicating the large size of the trees killed in this infestation. No data on diameters are available.

The control work was done during the five weeks in-

tervening between April 23 and May 29, 1917.

Township 39 South, Range 8 East, M.M.

Portions of 10 sections were covered in the 1917 control work in this township. The following data indicate the distribution and volume of the 196 yellow pines treated. No sugar pines were cut.

Yellow Pines Treated

Section	Number of trees	Total Volume in Bd.Ft.
4	9	9,389
5	30	33,392
8	7	6,922
9	25	31,435
10	2	4,316
16	59	94,461
17	23	17,120
20	38	31,749
21	1	4,131
27	2	4,420
	196	237,335

The treated yellow pine in this township averaged 19.6 trees or 23,700 board feet for each of the 10 sections covered by the control work. The volume of the individual treated trees ranged from 50 board feet to a maximum of 5,400 feet, with an average volume of 1200 board feet. In this township again the infestation was for the greater part in the larger timber. No diameter data are available.

The work was done in the period March 5 - April 25, 1917.

Costs.

Unfortunately nothing is known about the cost of the work in these two townships aside from the total expenditure, and the proportion of it directly chargeable to labor. The 1917 costs on these two townships, of which about 12,000 acres was actually covered in the control operation, was $1,375.00, of which $946.00, or about 69%, was for labor. Including both yellow pine and sugar pine, about 406 M of timber was treated, at an average cost of $3.38 per M. The four men engaged on this work were paid an average of $85. per month and subsistence.

The work in Unit 2, on which no data on the treated volume are available, cost the Association $552.00, of which $388.00, or 70%, was for labor. The work was done in the vicinity of Bly and will be resumed in the spring of 1918.

It is interesting to note that although less than 12,000 acres were actually covered in the 1917 work on Unit I, yet the Association levied a tax of one cent per acre on over 157,000 acres in this Unit on the assumption that although the actual control measures were confined to one small portion of the Unit, yet the work was a protective measure by which the larger contiguous area benefitted.

Annual Report.

The following is an extract from that portion of Mr. Kimball's 1917 report of the Association which deals with the insect problem:

"Pine Beetle Protection"

"The pine beetle campaign of 1917 presents forcibly the value of preparedness - the preparedness which comprehends constant forest inspection on the part of the men fighting the beetle. I have frequently indicated to members of this association how the beetle works the greatest injury from 'the heavy centers of infestation', by which is meant those limited areas where a high percentage of all the trees are attacked at the same time. Such areas if not controlled extend in size with surprising rapidity.

"We conceived that our duty to our members was to watch our timber for evidence of bug destruction and particularly guard against such centralized attacks. Two well developed infestations have been treated by our men during 1917. The first located in Unit 1 was a continuation of our work in 1916, described in my annual report, the second in Unit 2 was located in the Bly country and will be further controlled in 1918. Each of these infestations was gaining strength and certainly demanded attention.

"The present condition of the great belt of pine timber in the Jenny Creek plateau is a remarkable evidence of the value of beetle control. A loss, which before our protective work was tremendous in the aggregate is now almost entirely confined to isolated trees on the edge of the tract.

"No series of operations will likely ever entirely stamp out this pest, but systematic cooperation from all holders of timber will ultimately reduce the cost of providing against loss to a few cents per section of land. Signs are not wanting that realization of the necessity for beetle control is awakening among our neighbors. In various parts of California from time to time spasmodic efforts have been made to check this beetle destruction. During the past year additional impetus has been given to this subject because of the articles written by Stewart Edward White. No really satisfactory results may be expected from occasional treatment of our forests. Eternal vigilance is the price of immunity."

A. J. Jaeniche
Forest Examiner